

WHAT IS CLAIMED IS:

1. A method for delivering a treatment tool to a treatment site within the body of a subject in need thereof, comprising:

a) placing a guiding element at a reference site being at a first distance from said treatment site, said treatment site being in a first direction from said reference site; and

b) utilizing a positioning tool to guide a treatment tool to a locus so positioned that a second distance, from said guiding element to said locus, is substantially similar to said first distance, and a second direction, from said guiding element to said locus, is substantially similar to said first direction from said reference site to said treatment site;

thereby positioning said treatment tool substantially at said treatment site.

2. The method of claim 1, wherein said positioning tool is a mechanical device operable to position said treatment tool at said second distance from said guiding element and in said second direction from said guiding element.

3. The method of claim 1, wherein said positioning tool is an electro-mechanical device operable to position said treatment tool at said second distance from said guiding element and in said second direction from said guiding element.

4. The method of claim 1, wherein said positioning tool is a position-reporting device operable to report distance and direction from said guiding element to said treatment tool, thereby providing information enabling a surgeon to position said treatment tool at a said second distance from said guiding element and in said direction from said guiding element.

5. The method of claim 1, further comprising using a catheter to place said guiding element at said reference site.

6. The method of claim 5, wherein said guiding element is integrated with said catheter.

7. The method of claim 1, wherein said reference site is a selected portion of a natural body conduit.

8. The method of claim 7, wherein said natural body conduit is a urethra.

9. The method of claim 7, wherein said natural body conduit is a blood vessel.

10. The method of claim 7, wherein said natural body conduit is a bronchial tube.

11. The method of claim 7, wherein said natural body conduit is an intestine.

12. The method of claim 7, wherein said natural body conduit is a colon.

13. A method for treating tissue at a treatment site within the body of a subject, comprising:

a) delivering a treatment tool to a treatment site within the body of a subject, by

i) placing a guiding element at a reference site at a first distance from said treatment site, said treatment site being in a first direction from said reference site; and

ii) utilizing a positioning tool to guide a treatment tool to a locus so positioned that a second distance, from said guiding element to said locus, is substantially similar to said first distance, and a second direction, from said guiding element to said locus, is substantially similar to said first direction, thereby positioning said treatment tool substantially at said treatment site; and

b) utilizing said treatment tool to treat said tissue at said treatment site.

14. The method of claim 13, further comprising utilizing said treatment tool to ablating prostate tissue.

15. The method of claim 13, wherein said treatment site is a volume of tissue situated less than a selected maximum distance from said guiding element and more than a selected minimum distance from said guiding element.

16. The method of claim 15, wherein said guiding element is a guiding segment having a length in excess of 1 cm.

17. The method of claim 1, wherein said positioning tool comprises a template having an aperture sized and shaped to permit passage of said treatment tool.

18. The method of claim 17, wherein said aperture is sized and shaped to orient said treatment tool in a predetermined direction.

19. The method of claim 18, wherein said predetermined direction is perpendicular to said template.

20. The method of claim 17, wherein said template comprises a plurality of apertures, each aperture sized and shaped to permit passage of a treatment tool.

21. The method of claim 17, wherein said guiding element is a guiding segment which is substantially straight and has a length in excess of 1 cm.

22. The method of claim 21, further comprising orienting said template to be perpendicular to a long axis of said guiding segment.

23. A method for treating Benign Prostate Hyperplasia by ablating prostate tissue proximate to, but not contiguous to, a prostatic urethra, comprising:

a) utilizing a catheter to introduce into a prostatic urethra a substantially straight guiding segment oriented in a first orientation;

- b) orienting a template having a plurality of apertures spaced around a central point, so that said template is perpendicular to said first orientation;
 - c) centering said template with respect to said guiding segment in such a way that a line, in said first orientation, extending from said guiding segment to said template, would intersect said template at said central point;
 - d) deploying a plurality of treatment tools through said plurality of apertures; and
 - e) utilizing at least some of said treatment tools to ablate tissue of said prostate,
- thereby treating Benign Prostate Hyperplasia by ablating prostate tissue proximate to, but not contiguous to, a prostatic urethra.

24. The method of claim 5, wherein said catheter comprises a plurality of joints lockable at fixed angles.

25. The method of claim 5, wherein said catheter comprises a plurality of variable joints joining rigid segments, each of said variable joints is operable to report an angle at which segments adjacent thereto are joined.

26. The method of claim 25, further comprising orienting said template with respect to said guiding segment by attaching said template to said catheter at an angle calculated as a function of a sum of said reported angles of said plurality of variable joints.

27. The method of claim 25, further comprising orienting said plane of said template by selecting a template position which minimizes a signal, received at a sensor mounted on said template, which signal originates at a signal transmitter proximate to said guiding segment.

28. The method of claim 25, further comprising centering said template with respect to said guiding segment by selecting a template position which equalizes strengths of signals received at a plurality of sensors monitored on said template, which signals originate at a signal transmitter proximate to said guiding segment.

29. An apparatus for delivering a treatment tool to a treatment site within the body of a subject, comprising:

a) a guiding element operable to be placed at a reference site at a first distance from said treatment site, said treatment site being in a first direction from said reference site; and

b) a positioning tool operable to guide a treatment tool to a locus so positioned that a second distance, from said guiding element to said locus, is substantially similar to said first distance, and a second direction, from said guiding element to said locus, is substantially similar to said first direction from said reference site to said treatment site.

30. The apparatus of claim 29, wherein said positioning tool is a mechanical device operable to position said treatment tool at said second distance from said guiding element and in said second direction from said guiding element.

31. The apparatus of claim 29, wherein said positioning tool is an electro-mechanical device operable to position said treatment tool at said second distance from said guiding element and in said second direction from said guiding element.

32. The apparatus of claim 29, wherein said positioning tool is a position-reporting device operable to report distance and direction from said guiding element to said treatment tool, thereby providing information enabling a surgeon to position said treatment tool at a said second distance from said guiding element and in said direction from said guiding element.

33. The apparatus of claim 29, further comprising a catheter operable to place said guiding element at said reference site.

34. The apparatus of claim 33, wherein said guiding element is integrated with said catheter.

35. The apparatus of claim 1, further comprising a treatment tool operable to ablate tissue.

36. The apparatus of claim 29, wherein said guiding element is a guiding segment having a length in excess of 1 cm.

37. The apparatus of claim 29, wherein said positioning tool comprises a template having an aperture sized and shaped to permit passage of said treatment tool.

38. The apparatus of claim 37, wherein said aperture is sized and shaped to orient said treatment tool in a predetermined direction.

39. The apparatus of claim 38, wherein said predetermined direction is perpendicular to said template.

40. The apparatus of claim 37, wherein said template comprises a plurality of apertures, each aperture sized and shaped to permit passage of a treatment tool.

41. The apparatus of claim 37, wherein said guiding element is a guiding segment which is substantially straight and has a length in excess of 1 cm.

42. The apparatus of claim 41, further comprising orienting means for orienting said template in an orientation perpendicular to a long axis of said guiding segment.

43. The apparatus of claim 33, wherein said catheter comprises a plurality of joints lockable at fixed angles.

44. The apparatus of claim 33, wherein said catheter comprises a plurality of variable joints joining rigid segments, each of said variable joints is operable to report an angle at which segments adjacent thereto are joined.

45. The apparatus of claim 44, further comprising a servomotor operable to orient said template perpendicularly to said guiding segment.

46. The apparatus of claim 45, wherein said servomotor is operable to orient said template with respect to said catheter at an angle calculated as a function of a sum of said reported angles of said plurality of variable joints.

47. The apparatus of claim 37, wherein said guiding element comprises a signal transmitter and said template comprises a signal sensor.

48. The apparatus of claim 47, wherein said signal sensor is operable to report a signal whose strength is a function of an angle of orientation of said template with respect to said guiding segment.

49. The apparatus of claim 48, wherein said signal sensor is operable to report a signal whose strength is at a minimum when said template is perpendicular to said guiding segment.

50. The apparatus of claim 47, further comprising a plurality of sensors operable to receive a signal generated by said signal transmitter.

51. The apparatus of claim 50, wherein said plurality of sensors is operable to report substantially equal signal strengths when said template is both perpendicular to, and centered with respect to, said guiding element.

52. The apparatus of claim 33, wherein said catheter is operable to be flexible, and also operable to be stiff.

53. The apparatus of claim 52, wherein said catheter comprises an inflation lumen, and said catheter is operable to be rendered stiff by introduction of pressurized fluid into said inflation lumen.

54. The apparatus of claim 52, wherein said catheter is operable to be stiffened by insertion of an insertable stiffening element.

55. The apparatus of claim 33, wherein said guiding element comprises a transmitter.

56. The apparatus of claim 55, wherein said guiding element comprises a sensor operable to detect a signal transmitted by said signal transmitter and reflected from a treatment tool.

57. The apparatus of claim 56, further comprising a display system operable to receive information from said sensor.

58. The apparatus of claim 56, further comprising a controller operable to calculate movements required to deliver said treatment tool to said treatment site, based on information provided by said sensor.

59. The apparatus of claim 55, further comprising a treatment tool which comprises a sensor operable to detect a signal transmitted by said transmitter.

60. The apparatus of claim 33, wherein said guiding element comprises a sensor, and further comprising a treatment tool which comprises a transmitter, said sensor is operable to detect a signal transmitted by said transmitter.

61. The apparatus of claim 60, further comprising a display system operable to receive information from said sensor.

62. The apparatus of claim 60, further comprising a controller operable to calculate movements required to deliver said treatment tool to said treatment site, based on information provided by said sensor.

63. An apparatus for delivering a treatment tool to a treatment site in the body of a subject, comprising:

- a) an imaging device;

b) a catheter which comprises a guiding element designed and constructed to be rendered visible by said imaging system, and to appear distinct from other objects imaged by said imaging system; and

c) a treatment tool which comprises a distal portion designed and constructed to be rendered visible by said imaging system, and to appear distinct from other objects imaged by said imaging system.